From:	Garyg Miller
To:	Barry Forsythe
Cc:	Susan Roddy; Barbara Nann; Rita Engblom; Carlos Sanchez; Voskov, Luda; lchampag@tceq.state.tx.us
Subject:	Fw: Gulfco Comments
Date:	04/23/2010 01:15 PM
Attachments:	Appendix I_rev1.pdf Gulfco 3-10-10 PF-WP cmts ltr 4-14-2010.doc Gulfco 3-10-10 PF-WP cmts 4-14-2010.doc Gulfco SLERA Comments 4-13-10.doc Gulfco 3-10-10 SLERA cmts ltr 4-14-2010.doc

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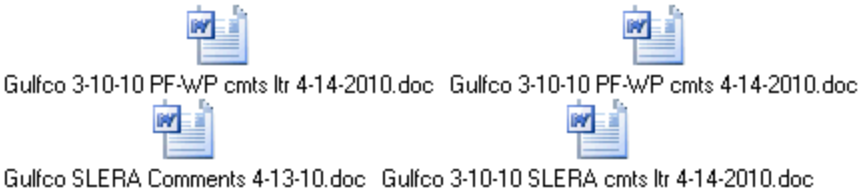
Barry - FYI. (check out the Appendix I file at the bottom too). Are you in Monday? The Gulfco PRPs have proposed doing an eco removal component as a part of the removal AOC; they are preparing a workplan for it now & said we should get the draft eco removal workplan on 4/29/10. They are also proposed a meeting for 5/4/10 to discuss the eco removal. The notion is that the eco removal would be done instead of completing the eco sampling & BERA.

Thanks,

Gary Miller, P.E.
Remediation Project Manager
EPA Region 6 - Superfund (6SF-RA)
(214) 665-8318
miller.garyg@epa.gov



----- Forwarded by Garyg Miller/R6/USEPA/US on 04/23/2010 11:49 AM -----

From:	"Kirby Tyndall" <kirby.tyndall@pbwllc.com>
To:	"Kirby Tyndall" <kirby.tyndall@pbwllc.com>, Garyg Miller/R6/USEPA/US@EPA, Susan Roddy/R6/USEPA/US@EPA
Cc:	"Michael Jones" <michael.jones@pbwllc.com>, <lchampag@tceq.state.tx.us>
Date:	04/23/2010 10:12 AM
Subject:	RE: Gulfco Comments

Here is the pdf of the excel file. I hope this helps!!
Kirby

From: Kirby Tyndall
Sent: Friday, April 23, 2010 9:25 AM
To: Miller.Garyg@epamail.epa.gov; Susan Roddy
Cc: Michael Jones
Subject: FW: Gulfco Comments

Here you go!
kt

From: Kirby Tyndall
Sent: Wednesday, April 14, 2010 11:45 AM
To: Roddy.Susan@epamail.epa.gov; kirby.tyndall@pbwlc.com; michael.jones@pbw.lc.com; Miller.Garyg@epamail.epa.gov; Meyer.John@epamail.epa.gov; lchampag@tceq.state.tx.us; michael.jones@pbwlc.com; Eric Pastor; Michael Jones
Subject: RE: Gulfco Comments

Hi! Attached is the revised Appendix I spreadsheet for the Pond sediment and surface water. We have incorporated changes according to the comments you all gave us and include: 1) adding all sediment COIs to the calculations that were previously screened out based on comparisons to benthic organisms to allow for estimating high-trophic level effects via sediment ingestion, surface water ingestion and food intake from all prey items; 2) using the specified hierarchy of BSAFs and BAFs to arrive at food concentrations for all compounds; 3) using maximum sediment concentrations for estimating worm and crab concentrations, 95% UCL for sediment ingestion and for estimating fish concentrations; and 4) summing all intake pathways (sediment ingestion, surface water ingestion, ingestion of prey via uptake from sediment to worm, crab and fish, and ingestion of prey via uptake from surface water to worm, crab, and fish) for each compound.

Comparing these new spreadsheets to the March 10, 2010 SLERA Appendix I, no additional HQs greater than one were calculated, which to me lends confidence in the use of the benthic screening values as also being protective of higher trophic levels. You will notice that the lead HQ for the sandpiper is now below one. This is because, in the March 10, 2010 SLERA, we used an avian TRV from the Combustion Guidance of 2.5E-2 mg/kg-day to assess risk from surface water ingestion pathways. In Appendix H of the March 10, 2010 SLERA, however, where lead was a COPEC after the original screen, we used the EPA Soil Screening Level (SSL) TRV for avian species of 1.63 mg/kg-day. We believe that the SSL TRV is more appropriate since it is based on NOAELs from approximately 50 studies while the Combustion Guidance TRV relies on the LOAEL from one study with a safety factor of 1000. Regardless, we should have used consistent TRVs and are proposing to use the SSL TRV in this version of the calculations. Sorry the confusion on this.

You will also note during your review that some of the intakes/HQs have increased as would be expected since we added BAFs and such. Some, however, have decreased. For example, DDD and DDT risks decreased slightly and this is due to changing the sediment concentration used to estimate worm and crab concentrations. Specifically for DDD and DDT, in some instances with detections that are J flagged data, the maximum concentration is lower than the EPC determined by ProUCL (i.e., typically the 95% UCL but not always since it depends on the data set and distribution of the data set) since the recommend EPC for infrequently detected data is often the median of the whole dataset, including sample detection limits.

Because these changes have a ripple effect for Appendices F, G, and H, please review these spreadsheets and, if they are okay, we will make similar changes to Appendices F, G, and H along with any other changes you may have. Hopefully, these revisions give you confidence that these modifications to Appendix I do not materially change the conclusions we can draw about Pond sediment (except that lead in the sandpiper is no longer of concern and will be deleted from Table 29). Also, we would appreciate any thoughts or feedback on the revised Table 19 and Jarvinen and Ankley documentation so we can make sure that it is what you had in mind.

Please let me know if you have any comments or questions.
Thank you!
Kirby Tyndall, Ph.D., DABT
Senior Consulting Toxicologist
Pastor, Behling & Wheeler, LLC
512 671-3434

From: Roddy.Susan@epamail.epa.gov [mailto:Roddy.Susan@epamail.epa.gov]
Sent: Friday, April 09, 2010 3:54 PM
To: kirby.tyndall@pbwlc.com; michael.jones@pbw.lc.com; Miller.Garyg@epamail.epa.gov; Roddy.Susan@epamail.epa.gov; Meyer.John@epamail.epa.gov; lchampag@tceq.state.tx.us; michael.jones@pbwlc.com; Eric Pastor; Kirby Tyndall; Michael Jones
Subject: Fw: Gulfco Comments

Below are my additions regarding Appendix I to Larry's based on yesterday's meeting. Some may be overlapping. If there are any more I find, I'll send them ASAP.
Susan

For the sandpiper, sediment ingestion, sediment to worm, and sediment to crab estimations need to be done and included in the intake and HQ evaluations for lead (so that the evaluation does not just include water ingestion and water to worm, and the zero for the water to crab needs to be revisited). And, the other contaminants should be double-checked that these sediment pathways were included as well for both the sandpiper and green heron.

The understanding is that there will be 24 additional contaminants from Table 9 added to the evaluation for the aquatic wildlife (sandpiper and green heron), those

separate from the ERL evaluation for benthic receptors since ERLs are not appropriate screening values for wildlife.

The hierarchy for sediment to aquatic invertebrate will be empirical, half the detection limit, the max value from the Calcasieu RI, the Combustion guidance values, and a default of one.

The zeros in the surface water section of Table I-8 including the 24 new contaminants shall be 1) clarified (to avoid double counting when an actual sediment tissue empirical data point was available, 2) corrected and footnoted to include estimations such that sediment and surface water estimations are combined, 3) replace zeroes with measured or half detection limits or Combustion guidance or default of one.

If there is not any empirical tissue data, sediment to worm shall be added to water to worm, and likewise, sediment to crab shall be added to surface water to crab.

The 95 UCL value is acceptable to use to calculate sediment ingestion for the avian carnivores. The 95 UCL is acceptable to calculate fish concentrations which are mobile. However, maximum concentration values shall be used to calculate crab and worm concentrations since they are sedentary (this should also be reflected in the revised Table 19).

Table I-4 needs to label the split between the sediment values at the top and the surface water values at the bottom.

The footnote in Table I-8 (*) needs to be corrected to indicate that even though the human health Gulfco SAP did not require sampling of all the contaminants needing evaluation for the ecological risk assessment, there were estimations for these other contaminants.

The Refinement needs to be checked for if there was another reason that the HQ for lead for the sandpiper fell below unity besides the accepted use of the average body weights.

For nickel, zinc, HPAHs, and TPAHs, Table I-4 for total intake should not be blank; rather, the values to be included should be for those from the surface water ingestions and surface water to food item estimations from Table I-8.

Combustion guidance values should be used for analytes not empirically measured in crab, but where the contaminant was measured in surface water and sediment (this meshes with the hierarchy comment).

Use the revisions in Appendix I to correct Table 29 in the SLERA as the starting point for the Refinement calculations to be rerun where needed for the Problem Formulation.

----- Forwarded by Susan Roddy/R6/USEPA/US on 04/08/2010 01:47 PM -----

Gulfco Comments

Larry Champagne to: Garyg Miller, Susan Roddy, Eric Pastor, Kirby Tyndall, Michael Jones 04/07/2010 04:31 PM

All:
Here are my draft Appendix I comments as we discussed. Although the green heron is included in some of these, I believe we talked about focusing on the sandpiper. Please let me know if you have any questions
Larry

Table I-4: The list of chemicals appearing in the sediment concentration portion of this table should correspond to the list appearing in Table 9. Currently, many chemicals that were detected in at least 1 of 8 samples in Table 9 do not appear in Table I-4. Just because a chemical was at a concentration below its benthic screening-level, does not mean it is eliminated from a higher trophic level evaluation. This will have a cascading effect on Tables I-5 through I-7 as it means that the incidental sediment ingestion component of the total intake will need to be identified.

Tables I-4 and I-5: In addition to the incidental sediment ingestion component previously mentioned, sediment-to-worm and sediment-to-crab components of the total intake for the sandpiper will need to be developed for the missing COPECs, as will the sediment-to-crab component for the green heron. Also, it is unclear why a BSAF/BCF is not provided for every COPEC. This value can be obtained from empirical data, half the detection limit, USEPA (1999) or other sources, or a default value of 1 can be used. Finally, the exposure point concentration (EPC) for the sandpiper/green heron incidental ingestion should be the EPC values from Table 9. However, when determining what the COPEC concentration in the worm and crab is (Table I-8), it may be appropriate to multiply the maximum sediment concentration by the BSAF as these are benthic invertebrates.

Tables I-4, I-5, and I-8: The values for the crab and worm listed under “Food Ingestion” in Tables I-4 and I-5 do not correspond to the values in Table I-8. If a value appears for both sediment and water in Table I-8 (e.g., sediment-to-worm and water-to-worm for nickel, zinc, HPAH, and Total PAH), only the water value appears in Tables I-4 and I-5. In other words, these values were not combined. Also, only where a COPEC was identified for sediment but not for water in Table I-8 was that value reported in Tables I-4 and I-5.

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